

19. (Amended) An isolated polynucleotide comprising the promoter of the *Ara h2* gene having the nucleotide sequence shown in Figure 9 (residues 1-154 of SEQ ID NO: 1).

20. (Amended) An isolated polynucleotide consisting essentially of the nucleotide sequence selected from the group consisting of the nucleotide sequences shown in Figures 3 (SEQ ID NO: 3), 4 (SEQ ID NO: 4), 5 (SEQ ID NO: 5) and 7 (SEQ ID NO: 6).

REMARKS

Applicants have revised specification and claims 5-9, 12, 19 and 20 to comply with the requirement for sequence listings under 37 CFR 1.821(d). More specifically, applicants have incorporated proper sequence identifiers at pages 45 and 47, and amended claims 5-9, 12, 19 and 20 to recite the relevant SEQ ID NOS.

With respect to the accompanying restriction requirement, applicants hereby elect the subject matter of Group V, claim 21, with traverse. Applicants, of course, reserve the right to file divisional applications covering the subject matter of the non-elected claims.

According to MPEP § 803, if "the search and examination of an entire application can be made without serious burden, the examiner must examine it on the merits, even though it includes claims to distinct or independent inventions." Applicants contend that this is the case in the present application.

In particular, with respect to restriction between Groups I and V, the examiner has not demonstrated that there is a serious search burden on the examiner. Both claims of Groups I and V are related to a method for producing a transgenic peanut plant with reduced or undetectable allergen protein content using a DNA comprising a peanut allergen gene including *Ara h* allergen gene or a homologous region common to more than one *Ara h* allergen gene. When the examiner performs a search for a homologous region common to more than one *Ara h* allergen gene, this search encompasses all *Ara h* allergen genes that are covered by claims of Group I. Thus, applicants believe that searching and examining all of the claims of Groups I and V would not place an undue burden on the examiner.

For the reasons indicated above, applicant respectfully requests reconsideration and withdrawal of the restriction requirement. Applicants earnestly await receipt of the initial Office Action on the merits.

Respectfully submitted,

Date Oct. 8, 2002

By *Richard C. Peet*

FOLEY & LARDNER
Customer Number: 22428

for Richard C. Peet *Reg No 35,264*
Attorney for Applicant
Registration No. 35,792



22428

PATENT TRADEMARK OFFICE

Telephone: (202) 672-5483
Facsimile: (202) 672-5399



MARKED UP VERSION ATTACHED TO AMENDMENT IN
SERIAL NO. 09/715,036

RECEIVED

OCT 11 2002

TECH CENTER 1600/2900

In the Specification

Marked up version of the paragraph starting at page 9, lines 15-20 is below:

Fig. 2 shows the nucleotide and deduced amino acid sequences (SEQ ID NOS 1-2, respectively) of peanut allergen *Ara h2* gene. The figure also shows a putative TATA box, an ATG initiation codon, the first stop codon (TGA), and putative polyadenylation signal (bold). Six additional stop codons are underlined. The deduced polypeptide encoded by the open reading frame has 207 amino acids residues and includes a putative signal peptide of 21 amino acid residues (underlined).

Marked up version of the paragraph starting at page 9, lines 21-25 is below:

Fig. 3 shows the PCR amplified region (in capital letters) of *Ara h2* genomic DNA (SEQ ID NO: 3), cloned in transformation vectors (pUC18 and pBI434) in sense and antisense orientations to down-regulate *Ara h2*, *Ara h6*, and *Ara h7* allergens in peanut. This region is a portion of the sequence homology region between *Ara h2*, *Ara h6*, and *Ara h7* allergens.

Marked up version of the paragraph starting at page 9, lines 26-29 is below:

Fig. 4 shows the PCR amplified region (in capital letters) of *Ara h3* cDNA (SEQ ID NO: 4), cloned in transformation vectors (pUC18 and pBI434) in sense and antisense orientations to down-regulate *Ara h3*, and *Ara h4* allergens in peanut. This region is a portion of the sequence homology region between *Ara h3* and *Ara h4* allergens.

Marked up version of the paragraph starting at page 9, line 30 to page 10, line 3 is below:

Fig. 5 shows PCR amplified region (in capital letters) of *Ara h1* P41B cDNA (SEQ ID NO: 5), cloned in transformation vectors (pUC18 and pBI434) in sense and antisense orientations to down-regulate *Ara h1* P41B, and *Ara h1* P17 allergens in peanut. This

region is a portion of the sequence homology region between *Ara h1* P41B and *Ara h1* P17 allergens.

Marked up version of the paragraph starting at page 10, lines 6-8 is below:

Fig. 7 shows the PCR amplified region of *Ara h5* cDNA (SEQ ID NO: 6) (shown in bold), cloned in sense and antisense orientations in transformation vectors (pUC18 and pBI434), to down-regulate *Ara h5* allergen in peanut.

Marked up version of the paragraph starting at page 10, lines 11-12 is below:

Fig. 9 shows the nucleotide sequence (residues 1-154 of SEQ ID NO: 1) of the *Ara h2* promoter upstream of the ATG initiation codon.

Marked up version of the paragraph starting at page 45, lines 8-18 is below:

EXAMPLE 1. Isolation and characterization of the genomic clones encoding the peanut allergen genes.

a) Library screening

To identify the genomic clone of the gene coding for the peanut allergen *Ara hII*, a peanut genomic library constructed in a Lambda Fix II vector (Stratagene Inc, La Jolla, CA) was screened with an 80 base pair oligonucleotide probe. The probe sequence (5'-ctagtagccctcgcccttttctcctcgctgcccacgcatctgcgaggcagcagtggggaactccaaggagacagaag atg-3') (SEQ ID NO: 7) corresponds to nucleotide eleven to ninety-one of a published *Ara h2* cDNA sequence (GeneBank accession L77197).

Marked up version of the paragraph starting at page 47, lines 23-30 is below:

f) Subcloning of a 6.5 kb fragment into a phagemid vector

A 62 base pair probe (5'-gtgcatgtgagggcattgcaacagatc atggagaaccagagcgataggttgaggaggc-3') (SEQ ID NO: 8) was designed from cDNA sequence downstream from the *BamH* I site to capture the remaining DNA fragment of the *Ara hII* gene. Of the five fragments obtained after digestion of the 50 kb lambda clone with *BamH* I, only the 6.5 kb fragment hybridized to this probe. This

fragment was subcloned into pBluescript II SK + plasmid vector and sequenced (Figure 1).

In the Claims:

Marked up rewritten claims:

5. **(Amended)** The method according to claim 1, wherein the peanut allergen sense or antisense gene, or a fragment thereof, comprises at least a portion of the nucleotide sequence shown in Figure 2 **(SEQ ID NO: 1)**.

6. **(Amended)** The method according to claim 1, wherein the peanut allergen sense or antisense gene, or fragment thereof, comprises at least a portion of the nucleotide sequence shown in Figure 3 **(SEQ ID NO: 3)**.

7. **(Amended)** The method according to claim 1, wherein the peanut allergen sense or antisense gene or fragment thereof, comprises at least a portion of the nucleotide sequence shown in Figure 4 **(SEQ ID NO: 4)**.

8. **(Amended)** The method according to claim 1, wherein the peanut allergen sense or antisense gene, or fragment thereof, comprises at least a portion of the nucleotide sequence shown in Figure 5 **(SEQ ID NO: 5)**.

9. **(Amended)** The method according to claim 1, wherein the peanut allergen sense or antisense gene, or fragment thereof, comprises at least a portion of the nucleotide sequence shown in Figure 7 **(SEQ ID NO: 6)**.

12. **(Amended)** The polynucleotide molecule according to claim 11, wherein the antisense gene has the nucleotide sequence selected from the group consisting of the nucleotide sequences shown in Figures 3 **(SEQ ID NO: 3)**, 4 **(SEQ ID NO: 4)**, 5 **(SEQ ID NO: 5)** and 7 **(SEQ ID NO: 6)**.

19. **(Amended)** An isolated polynucleotide comprising the promoter of the *Ara h2* gene having the nucleotide sequence shown in Figure 9 (residues 1-154 of SEQ ID NO: 1).

20. **(Amended)** An isolated polynucleotide consisting essentially of the nucleotide sequence selected from the group consisting of the nucleotide sequences shown in Figures 3 (SEQ ID NO: 3), 4 (SEQ ID NO: 4), 5 (SEQ ID NO: 5) and 7 (SEQ ID NO: 6).